

REMARKS

All the claims submitted for examination in this application have been rejected on formal and substantive grounds. Applicants have amended their claims and respectfully submit that all the claims currently in this application are patentable over the rejection of record.

Two formal grounds of rejection have been imposed in the outstanding Official Action. The first of these, directed to all the claims examined on the merits in this application, Claims 1-14, rejects the claims, under 35 U.S.C. §112, first paragraph, as failing to meet the written description requirement. Specifically, independent Claims 1 and 9 are deemed to contain subject matter not described in the specification in a way to reasonably convey, to one skilled in the relevant art, that the inventors, at the time the application was filed, had possession of the claimed invention. More particularly, the Official Action avers that there is no support provided in the specification for the phrase “where the moisture content of the partially dehydrated vegetable piece is not 12% or less.”

As stated above, the claims of the application have been amended. Independent Claims 1 and 9 delete the phrase prompting this ground of rejection. As such, applicants have overcome this ground of rejection by eliminating the phrase predicated this rejection and, therefore, making this ground moot.

The second formal ground of rejection is again directed to all the claims examined on the merits in this application, Claims 1-14. These claims stand rejected, under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as their invention. Specifically, independent Claims 1 and 9, from which all the remaining claims depend, are deemed indefinite because

of the inclusion of the same phrase which predicated the first formal ground of rejection, the phrase “where the moisture content of the partially dehydrated vegetable piece is not 12% or less.”

The Official Action argues that this phrase is confusing since the first dehydration step encompasses vegetable pieces having a moisture content of less than 12%.

Although applicants believe that the aforementioned phrase in Claims 1 and 9 does not present any indefiniteness, the removal of that phrase removes any basis for maintenance of this second formal ground of rejection.

In regard to the issue of indefiniteness it is mentioned in passing that the process claims include two dehydrating steps. It is true that the first dehydrating step results in moisture pieces having a moisture content of from about 8% to about 30%. In the second dehydrating step the vegetable pieces, which have been compressed, are reduced in moisture content to about 12% or less. These two hydrating steps introduce no indefiniteness.

Those skilled in the art will immediately appreciate that the second dehydrating step is omitted when the first dehydrating step results in a moisture content at the lower end of the moisture content range produced by that step. That is, if the moisture content, in the first dehydrating step, is in the range of about 8% to about 12% it is apparent that the second dehydrating step is unnecessary. One need not be skilled in the art of vegetable freezing and reconstitution to appreciate this common sense interpretation.

Two substantive grounds of rejection have been imposed in the outstanding Official Action. The first of these is directed to Claims 1-5, 7 and 9-12. These claims stand rejected, under 35 U.S.C. §103(a), as being unpatentable over U.S. Patent 5,723,167 to Lewis et al.

taken in view of U.S. Patent 3,950,560 to Rahman et al. and U.S. Patent 4,109,026 to Rahman et al.

The Official Action avers that Lewis et al. discloses that it is known in the prior art to dehydrate a vegetable to a moisture content of 15 to 60% and compress the dehydrated product. The Official Action states that the limitation in Claim 1, that the moisture content of the partially dehydrated vegetable piece is less than 12%, is afforded no patentable weight insofar as the process limitation of compressing is irrelevant to a product claim and because a moisture content of less than 12% is disclosed in the secondary Rahman et al. ('026) reference.

The amendment to Claim 1 eliminates any support for this ground of rejection. The amendment to Claim 1 recites that the dehydrated shelf stable product comprises a compressed vegetable piece having a moisture content of about 12% or less. Amended Claim 1 is a product claim free of any process limitations. As far as the suggestion that the combined teaching of the references making obvious this limitation, applicants respectfully submit that this is not the case.

The outstanding Official Action argues that the combined teaching of Lewis et al. and Rahman et al. ('026) makes obvious a vegetable piece having a moisture content of less than 12%. However, such a teaching is specifically outside the clear teaching of the principal Lewis et al. reference. As previously argued in applicants' Amendment filed April 21, 2003, Lewis et al. states that is critical that the moisture content of the vegetable product be in the range of about 15% to about 60% (w/w), more preferably, between about 20% and about 40%. Indeed, Lewis et al. warns that a vegetable product at a moisture content below about 15% becomes hard, fragile and brittle when exposed to freezing temperatures (Column 3, line

53 to Claim 4, line 1). It is therefore clear that the Lewis et al. teaching is away from the product claims of this application.

It is axiomatic that a reference that teaches away from a claimed invention is highly indicative of patentability. This is so since a claimed invention, which requires that a limitation, which the prior art has suggested to those skilled in the art should not be done, be practiced is, in fact, strongly probative of nonobviousness. Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 235 USPQ 81 (Fed. Cir. 1986), on rehearing, 231 USPQ 160 (Fed. Cir. 1986).

The Official Action, appreciative of this flaw in the principal Lewis et al. reference, applies, as a secondary reference, Rahman et al. ('026) for its disclosure of dehydrating vegetables so that the moisture content is no greater than 5% by weight.

The teaching of Rahman et al. ('026) would require disregard of the teaching of the principal Lewis et al. reference.

It is well established that when a first prior art reference teaches away from a second prior art reference then that finding alone can defeat an obviousness rejection based on the combination of the two references. This is so since a prior art reference that teaches away from a claimed invention suggests that the line of development flowing from the second reference's disclosure is unlikely to be productive of the results sought by the applicant. Winner International Royalty Corp. v. Wang, 202 F.2d 1340, 53 USPQ2d 1580 (Fed. Cir. 2000).

So it is in the present application. The principal Lewis et al. reference discloses the criticality of not lowering vegetable moisture content to below 15%. The secondary Rahman et al. ('026) patent teaches a compressed cabbage having a moisture content of no more than

5%. That heroic processing efforts are required to produce such a result in Rahman et al. ('026), including the use of additives not employed in the principal Lewis et al. reference or in the process employed in producing the vegetable product of Claim 1 of the present application, establishes patentability over this ground of rejection.

The product produced by the claimed invention furthermore teaches away from the products produced by both the primary Lewis et al. and secondary Rahman et al. ('026) references. That is, the Lewis et al. product produces a compact compressed vegetable product having a moisture content of 15 to 60% in a substantially solid block (Column 4, lines 33-36), stored at freezing temperatures. The claimed invention of the present application is clearly limited to compressed vegetable pieces that are shelf stable and have a moisture content of 12% or less characterized by very rapid rehydration to edible tenderness and texture. Although the Rahman et al. ('026) disclosure produces a vegetable product that meets the moisture content of the product claims of the present application rehydration is far from rapid. The Rahman et al. vegetable product is rehydrated and suitable for eating only after immersion in water at 4.4°C for about 2 hours. The claimed vegetable product of the present invention is immediately rehydrated and suitable for eating immediately or, at most, within 5 minutes of immersion in boiling or near boiling water.

The picking and choosing of tidbits from the above discussed principal Lewis et al. and secondary Rahman et al. ('026) references that characterize this ground of rejection has been held in disfavor by the Federal Circuit. That Court has held that the combination of prior art references must evidence some teaching, suggestion or even motivation to combine their disclosures. That is, an examiner must provide reasons why a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention,

would select the elements from the cited prior art references for combination in the manner claimed. In re Rouffet, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998).

The earlier remarks establish that the combined teaching of Lewis et al. and Rahman et al. ('026) produce disparate rehydratable vegetable products which have more differences than similarities. Indeed, the two disclosures are contradictory even in terms of exact critical moisture content.

It is this practice of combining disparate teachings that fit the template created by rejected claims that prompted the requirements imposed in Rouffet. Therefore, it is apparent that the product claims subject to this ground of rejection, Claims 1 to 5 and 7, are patentable, under 35 U.S.C. §103(a), over Lewis et al. in view of Rahman et al. ('026) or Rahman ('560).

The above remarks are even of greater persuasiveness when applied to the process of the present application, as set forth in rejected Claims 9 to 12 and most broadly in amended independent Claim 9.

The requirement that the process of Claim 9 include a third step of dehydrating partially dehydrated compressed vegetable pieces to a moisture content of about 12% or lower distinguishes the process of that claim from Lewis et al., as described in detail above. Thus, it is again apparent why the secondary Rahman et al. ('026) patent was applied for its disclosure of producing a compressed vegetable piece having a moisture content of less than 5%.

Not only are these teachings inconsistent for the reasons given above but, in addition, it is apparent that the process of the secondary Rahman et al. ('026) reference is totally contradictory to the process practiced in the principal Lewis et al. reference.

The process disclosed in Rahman et al. ('026) requires the addition of such materials as sodium metabisulfite and a food grade surface active agent prior to compression.

Additionally, other blanching, drying and other steps are required in a complicated process of producing a vegetable product having a moisture content of no more than 5%. This process is totally different from the Lewis et al. process of dehydrating a vegetable product to a moisture content of about 15% to about 60% (w/w), compressing the dehydrated vegetable product to remove all the air between the spaces of the pieces to prevent freezing of the dehydrating product and reducing the temperature of the dehydrated product.

Clearly, the processing steps of the two references, which have been combined to allegedly make obvious the processing of Claims 9 to 12, are not only quite different but are, insofar as moisture content is concerned, contradictory. Thus, the remarks above, directed to the vegetable product claims, apply with even greater effect when applied to the even more distinguished process of the principal and secondary references.

The outstanding Official Action makes certain comments in regard to the process claims of the present application that need be rebutted.

The Official Action states that no patentable weight is afforded the claimed processing step of compressing the partially dehydrated vegetable product prior to the final, if necessary, dehydrating step to reduce the moisture content to about 12% or lower. This is so since it is not seen that the compressing step affects the moisture content.

Attention is directed to the specification of the present application at Page 5, lines 17 to 22. Thereat it is recited that “[F]urther dehydration results in rapid loss of moisture since the compressed product gives up its moisture very rapidly as compared to a piece which has not been compressed. The final moisture content should preferably be about 12% or lower, such as from about 2% to about 10%, for example, more preferably 4% to 6%.

As a result of these remarks, it is apparent that the compelling case for patentability, under 35 U.S.C. §103(a), of the product claims of this application has not only met but the case for patentability, under 35 U.S.C. §103(a), of the process claims may well be more compelling still.

It is unnecessary to discuss the second secondary reference, U.S. Patent 3,950,560 to Rahman et al., in regard to first substantive ground of rejection. This is so insofar as the Official Action has not specifically applied the Rahman et al. ('560) reference and Rahman et al. ('560) produces a product no different than the product produced in Rahman et al. ('026).

The second substantive ground of rejection is directed to Claims 6, 8, 13 and 14. These claims stand rejected, under 35 U.S.C. §103(a), as being unpatentable over Lewis et al., as applied in the first ground of rejection, in further view of Rahman et al. ('560) and Rahman et al. ('026).

Insofar as no specific reasons for rejection of these claims are provided in the Official Action above and beyond those recited in the first ground of rejection, applicants submit that the above remarks, which fully address the first ground of rejection, rebut the second ground of rejection.

Four new claims have been added to the present application. These claims, Claim 15-18, are directed to the vegetable product and the process, broadly defined in Claims 1 and 9, respectively, in which the vegetable pieces are compressed in a roller mill at a roller gap of 0.2 to 2.5 mm and to vegetable pieces which contains added solutes in an amount of from 0.3% to 10% w/w.

Support for the first of these two limitations, as set forth in new Claims 15 and 16, the limitation wherein the vegetable piece is compressed in a roller mill at a roller gap of 0.2 to

2.5 mm, is provided in the originally submitted specification at Page 4, lines 16-17. The second limitation, that the added solutes are present in an amount of from 0.3% to 10% w/w, which is the subject of new Claims 17 and 18, is provided in the originally submitted specification at Page 5, lines 7-8.

Applicants submit that these limitations, which further restrict and limit the vegetable product and process of the present application, are further removed from the combined teaching of the applied references than are the independent product and process claims discussed above and are patentable for the reasons given above.

The above amendment and remarks establish the patentable nature of all the claims currently in this application. Notice of Allowance and passage to issue of these claims, Claims 1-18, is respectfully solicited.

Respectfully submitted,



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